

*Illustrated Life-histories of New Zealand Insects: No. 2.*

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## Plate 32.

I DID not originally intend to include the Coleoptera within the scope of these notes, but, having had the good fortune to breed four species during the past season, I am tempted to publish the results, more especially as these beetles all belong to families of whose preparatory stages little is known. On this occasion I also include an account of the life-history and habits of a member of the order Hemiptera (suborder Homoptera).

## Order COLEOPTERA.

## Family TROGOSITIDAE.

*Leperina sobrina.* (Plate 32, fig. 8.)*Leperina sobrina* White, *Manual N.Z. Coleoptera*, 1, 178.

This interesting beetle is fairly common in the neighbourhood of Wellington. Its larva is found in burrows in the solid timber of various trees, the specimen actually reared having been discovered in the stem of a dead nikau-palm (*Rhopalostylus sapida*). The length of the full-grown larva is about  $\frac{5}{8}$  in. It is very stout, with a horny blackish-brown head; a semi-circular horny plate on the back of the second segment and two smaller plates on the dorsum of each of the third and fourth segments. The hind-body is very soft and fat, ochreous-grey; the terminal segment is black and very horny, armed above with two strong projecting processes. (See Plate 32, fig. 9.) The pupa state is spent in the burrow inhabited by the larva, and the perfect beetle remains hidden in this retreat for many days after its emergence whilst its integument gradually hardens and acquires its natural colours.

## Family CUCUJIDAE.

*Cryptamorpha brevicornis.* (Plate 32, fig. 5.)*Cryptamorpha brevicornis* White, *Manual N.Z. Coleoptera*, 1, 221.

This very active beetle is often abundant under the loose bark of felled hinau-trees (*Eleocarpus dentatus*), especially when saturated with moisture. The larva (Plate 32, fig. 6), which is even more active, is found in similar situations. Its length when full-grown is about  $\frac{1}{2}$  in. The antennae are about three times the length of the head, the body elongate narrow and much flattened, dull greenish-brown with a pair of pale spots on segments 5-11 inclusive and a darker dorsal streak throughout. The armature on the terminal segment consists of a long forked process, rising almost vertically from the dorsum, and when seen from above very much foreshortened. This larva is almost certainly carnivorous. The pupa (Plate 32, fig. 7) is secreted in a crevice on the inner side of the bark, its terminal segments remaining enclosed in the old larval skin. The beetles emerged in December.



## Family TENEBRIONIDAE.

*Paraphylax varius*. (Plate 32, fig. 1.)

*Paraphylax varius* Broun, *Manual N.Z. Coleoptera*, 1, 355.

This very remarkable beetle was discovered by Major Broun at Whangarei. It has occurred occasionally in the Wellington District, but is, generally speaking, a rare insect. The larva (Plate 32, fig. 2) inhabits the large shelf-like fungi (*Fomes*) which grow on the trunks of large forest-trees, apparently preferring those which have become detached and are in a partially decayed condition. Its length, when mature, is about  $\frac{1}{2}$  in. It is a cylindrical, bright ochreous-yellow grub, with a hard integument, furnished with six strong walking-legs and a shining reddish-yellow head; the second segment is rather large, covered with numerous short reddish bristles; the remaining segments are somewhat uniform in size with a dense row of reddish bristles around the middle of each; the posterior segment is furnished with a blackish horny ridge near its base, and two very large recurved hook-like processes at its extremity. This larva drills tunnels through the very hard inner substance of the fungus on which it feeds. About a dozen specimens were found in September, almost full-grown, and the beetles emerged in February. In the natural state the beetle has been found from August until April. Single specimens have usually been discovered adhering to the under-surfaces of logs, but on one occasion I found over sixty specimens on a large detached fungus, from which evidently they had recently emerged.

## Family MELANDRYIDAE.

*Mecorchesia brevicornis*. (Plate 32, fig. 3.)

*Mecorchesia brevicornis* Broun, *Bull. N.Z. Inst.*, 1, ii, 116.

This species is rather a rare beetle around Wellington. The larva (Plate 32, fig. 4), which was found under the bark of a recently felled rimu (*Dacrydium cupressinum*), is a rather elongate cylindrical grub, wholly ochreous, smooth, and shining; segments 5 to 9 inclusive are furnished with very prominent dorsal humps bearing on their summits numerous minute hooklets; the anal armature consists of two rather short, slightly recurved, horny processes. As only a single larva was found and reared, it is desirable that, when possible, the life-history be verified by the rearing of additional specimens.

This species was temporarily named *Hylobia nigricans* in 1890, but no description has been published under that name. Subsequently a description, which appears to refer to the same insect, was published by Major Broun, in 1914, under the name of *Mecorchesia brevicornis*, and I have adopted this name accordingly.

In connection with the special armatures present on the terminal segment in each of the beetle-larvae referred to above, it may be of interest to state that similar armatures are very frequently found on beetle-larvae which spend their lives in burrows in solid wood. The object of these remarkable structures is, I believe, to protect the larva from enemies approaching from behind. In many cases the burrow is so narrow that the larva cannot easily turn and bring its jaws into operation, and the need for some special means of defence from a rear attack is therefore obvious.



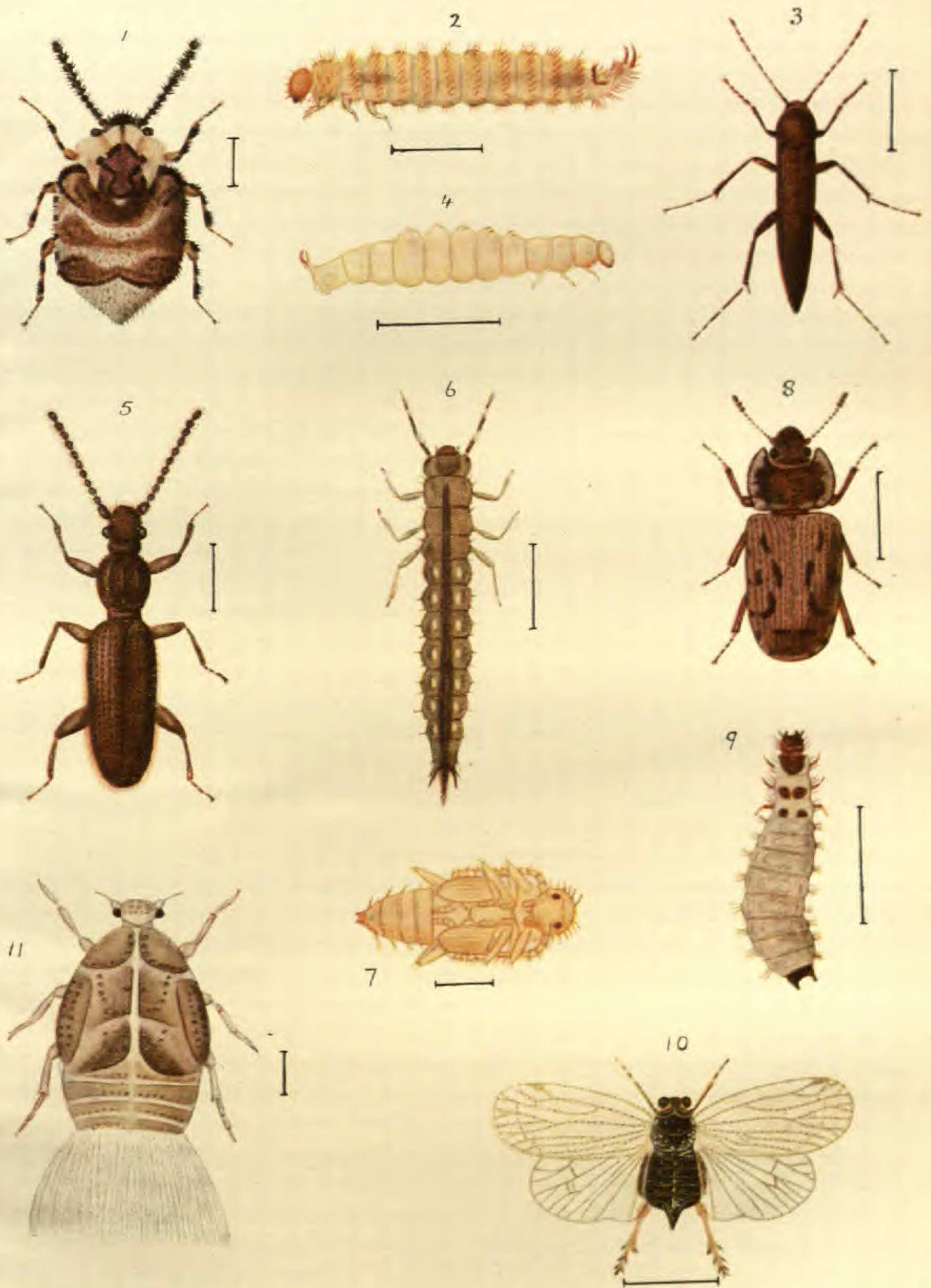


FIG. 1.—*Paraphylax varius* Broun.  
 FIG. 2.—Larva of *P. varius*.  
 FIG. 3.—*Mecorchesia brevicornis* Broun.  
 FIG. 4.—Larva of *M. brevicornis*.  
 FIG. 5.—*Cryptamorpha brevicornis* White.  
 FIG. 6.—Larva of *C. brevicornis*.

FIG. 7.—Pupa of *C. brevicornis*.  
 FIG. 8.—*Leperina sobrina* White.  
 FIG. 9.—Larva of *L. sobrina*.  
 FIG. 10.—*Oliarus oppositus* Walker.  
 FIG. 11.—Nymph of *O. oppositus*.